



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,969	03/11/2004	Antony L. Baughn	21200.0101PTUS	4032
32042	7590	11/16/2007		
PATTON BOGGS LLP 8484 WESTPARK DRIVE SUITE 900 MCLEAN, VA 22102			EXAMINER SPAHN, GAY	
			ART UNIT 3635	PAPER NUMBER
			MAIL DATE 11/16/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/796,969

Applicant(s)

BAUGHN ET AL.

Examiner

Gay Ann Spahn

Art Unit

3635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 11 March 2004 and 12 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 07 February 2005.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

In response to the Restriction Requirement in the Office Action mailed on 12 July 2007, Applicant's election of GROUP I (i.e., claims 1-16 and 18-25, drawn to a shutter) in the reply filed on 12 September 2007 is acknowledged. Because applicant did not distinctly and specifically point out any errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim 17 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 12 September 2007.

In response to the Election of Species Requirement in the Office Action mailed on 12 July 2007, Applicant's election with traverse of SPECIES II (i.e., Figs. 15 and 16) of the FIRST GROUP OF SPECIES (i.e., species of shutter), SPECIES II (i.e., Fig. 9) of the SECOND GROUP OF SPECIES (i.e., species of corner connector), and SPECIES I (i.e., Figs. 6 and 12) of the THIRD GROUP OF SPECIES (i.e., species of rail member) in the reply filed on 12 September 2007 is acknowledged.

Applicants have only traversed the Election of Species Requirement insofar as they disagree with the examiner's paragraph on the bottom of page 4 of the Office Action mailed on 12 July 2007 that SPECIES II (of GROUP I) cannot be elected with

SPECIES II (of GROUP II) since the specification does not indicate that the corner connector member (24) can be used with the embodiment of the shutter shown in Figs. 15 and 16. Applicants' arguments are found persuasive that the corner connector member (24) can be used with the embodiment of the shutter shown in Figs. 15 and 16 and therefore, the examiner's Election of Species Requirement is vacated only insofar as SPECIES II (of GROUP I) cannot be elected with SPECIES II (of GROUP II). The examiner's Election of Species Requirement as to there being three groups of species from each of which Applicants must elect a single species is maintained.

Therefore, the examiner's Election of Species Requirement is still deemed proper and is made FINAL.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 07 February 2005 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement has been considered by the examiner.

However, the second to last item in the "U.S. Patent Documents" section has been lined through as not being considered because U.S. Patent No. 6,536,714 is not a patent to FOSTER ET AL., but rather is a patent to GLEINE ET AL. issued on 25 March 2003.

Drawings

The drawings filed on 11 March 2004 must have the informalities indicated on the attached "Notice of Draftsperson's Patent Drawing Review" (i.e., PTO-Form-948) corrected.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the

(1) "pair third secondary rails" as specifically recited in claim 5, line 2, and
(2) "pair of fourth secondary rails" as specifically recited in claim 5, line 5,
must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New

Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to because:

(1) Fig. 1, region "3" should be labeled with either an Arabic numeral or a Roman numeral to indicate where the detail view can be found in accordance with 37 C.F.R. § 1.84(h)(3) (i.e., since the detail view is shown in both Figs. 2 and 3, it should be labeled either --2/3-- or --II/III--);

(2) Fig. 1, the arrow at the end of the lead lines leading from reference numeral "3" to the mitered surface should be deleted as not in compliance with 37 C.F.R. § 1.84(r)(1-3);

(3) Fig. 2, the "box" enclosing the figure must be deleted and instead should have line breaks on the top and left-hand side of the shutter;

(4) Fig. 3, the arrow at the end of the lead lines leading from reference numerals "26" and "34" to the channels should be deleted as not in compliance with 37 C.F.R. § 1.84(r)(1-3);

(5) Fig. 4, the arrow at the end of the lead lines leading from both occurrences of reference numeral "24E" to the taper should be deleted as not in compliance with 37 C.F.R. § 1.84(r)(1-3);

(6) Fig. 5, the arrow at the end of the lead lines leading from reference numerals "24C", "24D", and "24E" should be deleted as not in compliance with 37 C.F.R. § 1.84(r)(1-3);

(7) Fig. 6, the arrow at the end of the lead line leading from reference numeral "34" to the channel should be deleted as not in compliance with 37 C.F.R. § 1.84(r)(1-3);

(8) Fig. 7, the arrow at the end of the lead line leading from reference numeral "36" should be deleted as not in compliance with 37 C.F.R. § 1.84(r)(1-3);

(9) Fig. 9, the arrow at the end of the lead line leading from the left-most occurrence of reference numeral "54" should be deleted as not in compliance with 37 C.F.R. § 1.84(r)(1-3) and the left-most occurrence of reference numeral "54" should be changed to another reference numeral as this is an aperture through the corner connector member "24", not the latch pin receiver which in the U-shaped body pointed by the right-most occurrence of reference numeral "54";

(10) Fig. 11, the lead line ending in an arrow and leading from the left-most occurrence of reference numeral "82" and reference numeral "82" should be deleted as the center louver support is already shown by the reference numeral "82" and lead line at the bottom of the figure;

(11) Fig. 12, the arrow at the end of the lead line leading from reference numeral "104" should be deleted as not in compliance with 37 C.F.R. § 1.84(r)(1-3);

(12) Fig. 14, the arrow at the end of the lead line leading from reference numeral "96" to the center wall should be deleted as not in compliance with 37 C.F.R. § 1.84(r)(1-3); and

(13) there are two Fig. 15's and the Fig. 15 on the same sheet with Fig. 16 must be deleted (the Fig. 15 on the sheet by itself has more reference numerals or else it can be deleted, but the Fig. 15 on the sheet with Fig. 16 should have the reference numerals shown on the Fig. 15 on the sheet by itself inserted thereon).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because:

(1) Fig. 6, reference character "54" has been used to designate both "latch pin receiver" (i.e., U-shaped bracket on right-hand side of figure and also shown in Fig. 10) and "aperture through corner connector 24".

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

- (1) "11" (i.e., "shutter" in paragraph no. [0068]); and
- (2) "114" (i.e., "hinge member" in paragraph no. [0081]).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet

submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification. The following is a few of the minor errors that were noticed by the examiner.

The disclosure is objected to because of the following informalities:

(1) line 2 of paragraph no. [0015], "as seen from the 5-5 cut-line" should be changed to --taken along section line 5-5--;

(2) line 2 of paragraph no. [0016], "viewed from the 6-6 projection" should be changed to --taken along section line 6-6--;

(3) line 2 of paragraph no. [0044], "viewed from the 6-6 projection" should be changed to --taken along section line 6-6--;

(4) line 10 of paragraph no. [0045], "26a", "26b" and "24d" should be changed to --26A--, --26B--, and --24D--, respectively for consistency with the drawings and the rest of the specification;

(5) lines 3, 4, and 7 of paragraph no. [0066], "hole 54" should have the reference numeral changed to another number since reference numeral "54" already represents the U-shaped latch pin receiver shown in Figs. 9 and 10;

(6) line 8 of paragraph no. [0066], "50" should be changed to --52--; and

(7) line 8 of paragraph no. [0067], "50" should be changed to --52--.

Appropriate correction is required.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

Claims 3, 5, 7, 19, 22, and 23 are objected to because of the following informalities:

(1) claim 3, line 5, the second occurrence of the word "said" should be deleted;

(2) claim 5, line 2, the word --of-- should be inserted after the word "pair" for proper grammar;

(3) claim 7, line 8, the first occurrence of the word "said" is believed to be a typographical error which should be changed to the word --rail--;

(4) claim 19, line 4, the word "for" should be changed to --form--;

(5) claim 22, line 4, after the word "apart", the word --from-- should be inserted for proper grammar;

(6) claim 22, line 7, the word "if" should be changed to --of--; and

(7) claim 23, line 4, after the word "apart", the word --from-- should be inserted for proper grammar.

Appropriate correction is required.

Claim 21 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Since claim 21 recites exactly the same thing that claim 19 recites, claim 21 fails to further limit claim 19. It is believed that perhaps Applicants meant claim 21 to be made dependent upon claim 20 and for the rejection on the merits claim 21 has been treated as if dependent upon claim 20 instead of claim 19.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-14, 16, 19, and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, lines 4-5, (and claims 2-24 either directly or indirectly dependent upon claim 1), the recitation of "a respective four sides" is vague, indefinite, and confusing

because it is not known if Applicants are reciting a single side or plural sides and the examiner suggests amending to --a respective one of said four sides--.

Claim 1, line 7, (and claims 2-24 either directly or indirectly dependent upon claim 1), the recitation of “a respective vertices” is vague, indefinite, and confusing because it is not known if Applicants are reciting a single vertex or plural vertices.

Claim 1, line 9, the recitation of “and extending more than a first distance toward its opposite distal end” is vague, indefinite, and confusing because it is not understood what is extending? The receptacle opening? The rail member?

Futher, if it is a receptacle opening that is extending, isn't the opening only at the surface and wouldn't it be the receptacle that is extending, not the opening?

Claim 1, line 13 and line 15, the recitation of “the receptacle” is vague, indefinite, and confusing as lacking antecedent basis since only “a receptacle opening” has been introduced, but no “receptacle” has been introduced.

Claim 2, lines 1-3, the recitation that “at least one of said four longitudinal rail members is a hollow structure having an inner channel opening at each of, and extending between, its two distal ends” is vague, indefinite, and confusing because it is not understood what the difference is between the “receptacle opening” at each of the distal ends of each longitudinal rails and the “inner channel opening” at the distal ends of at least one of the four longitudinal rails?

Claim 2, line 4 and line 5, the recitation of “the receptacle” is vague, indefinite, and confusing as lacking antecedent basis since only “a receptacle opening” has been introduced, but no “receptacle” has been introduced.

Claim 8, lines 5-10, the recitation that “said center louver support is supported, at its first distal end, from movement in a direction parallel to said louver by a first of said pair of third secondary rails abutting a first of said corner connection members at one end and said first abutment member at its other end, and by a second of said pair of third secondary rails abutting a second of said corner connection members at one end and said first abutment member at its other end” is vague, indefinite, and confusing as not being understood because it is clear that that secondary rails never abut the corner connectors (i.e., it is clear from Fig. 3 that the corner connector 24 is completely enclosed within the channel 26 of the lower rail 18 and the right perimeter rail 22 so that when the mitered surfaces of lower rail 18 and right perimeter rail 22 meet, the secondary rails 38 and 40 cannot possibly abut the corner connector as is clearly shown in Fig. 16, but can only abut an adjacent secondary rail of a perpendicular longitudinal rail).

Also, lines 11-16, the recitation that “said center louver support is supported, at its second distal end, from movement in a direction parallel to said louver by a first of said pair of fourth secondary rails abutting a third of said corner connection members at one end and said second abutment member at its other end, and by a second of said pair of fourth secondary rails abutting a fourth of said L-shaped corner connection members at one end and said second abutment member at its other end” is vague, indefinite, and confusing as not being understood for the reasons as stated immediately above.

Clarification of both above-quoted recitations is required.

Claim 9, line 5 (both occurrences), the recitation of "said channel" is vague, indefinite, and confusing as lacking antecedent basis as no "channel" has been previously introduced in claim 9 or claim 1 on which claim 9 directly depends.

Claim 9, lines 7 and 9, the recitation of "said manual screw" is vague, indefinite, and confusing as lacking antecedent basis since it is not clear if this refers back to "a manually rotatable screw" introduced in line 4.

Claim 10, lines 7-8, the recitation of "said latch-pin clearance through hole" is vague, indefinite, and confusing as lacking antecedent basis since it is not clear if this refers back to "a latch pin clearance hole" introduced in line 6.

Claim 11, line 4, the recitation of "said at least two longitudinal rail members" is vague, indefinite, and confusing as lacking antecedent basis because no "at least two longitudinal rail members" has been previously introduced and therefore, it is not clear which at least two of the four longitudinal rails members are being referred to.

Further, at lines 9 and 11, the recitation of "said longitudinal rails" should be changed to --said at least two longitudinal rails-- for proper antecedent basis.

Claim 16, lines 4-6, the recitation that "said second outer frame member includes a plurality of second louver-support receptacles facing and in alignment with said plurality of second lover-support receptacles" is vague, indefinite, and confusing because it is not understood how the plurality of second louver-support receptacles face and are in alignment with the plurality of second louver-support receptacles and the examiner suggests changing "second" in line 5 to --first--.

Claim 19, line 3, the recitation of "said second projection" is vague, indefinite, and confusing as lacking antecedent basis because it is not clear if this is referring back to "a second projection member" introduced in claim 18, line 1.

Claim 21, line 3, the recitation of "said second projection" is vague, indefinite, and confusing as lacking antecedent basis because it is not clear if this is referring back to "a second projection member" introduced in claim 18, line 1 (or claim 20, line 3 since it is believed that claim 21 was inadvertently made dependent upon claim 19, when it was really meant to be made dependent upon claim 20 as noted in the claim objection section above).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 11, 15, and 18-21 are rejected under 35 U.S.C. 102(b) as being anticipated by ESCUDERO RIBAS (U.S. Patent No. 3,638,383).

As to claim 1 (and as best understood despite the 35 U.S.C. § 112, second paragraph, indefiniteness discussed above), ESCUDERO RIBAS discloses a shutter (Figs. 1-3), comprising:

a unitary frame (left and right stiles 1, 1, and top and bottom rails 21, 21)

including:

four longitudinal rail members (1, 1, 21, 21), each longitudinal rail member (1, 1, 21, 21) having a pair of opposite distal ends, said four members (1, 1, 21, 21) arranged along a respective four sides of a rectangular perimeter, such that one distal end of one of said longitudinal rail members (1, 1, 21, 21) substantially abuts one distal end of another of said longitudinal rail members (1, 1, 21, 21) at a respective vertices (miter corners as shown in Fig. 2) of said rectangular perimeter, each longitudinal rail member (1, 1, 21, 21) having a receptacle opening (opening to hollow space 36 or 37 of stiles 1 and openings to hollow space 39 or 40 of rails 21) at each of its distal ends and extending more than a first distance toward its opposite distal end; and

four corner connection members (lath 33 or 34), each located at a respective one of the four vertices (at miter corners) of said rectangular perimeter, and each having a first projection (1st leg of 33 or 34) and a second projection (2nd leg of 33 or 34), said first projection (1st leg of 33 or 34) extending said first distance into and bonded to (by glue - see claim 6) a surface of the receptacle of one said longitudinal rail members (1, 1, 21, 21) and said second projection (2nd leg of 33 or 34) extending said first distance into and bonded to (by glue - see claim 6) a surface of the receptacle of another of said longitudinal rail members (1, 1, 21, 21); and

a portal covering structure (fins 18) secured to and supported by (via 8, 9, 10, 11, 12, 13) said unitary frame (1, 1, 21, 21).

As to claim 2 (and as best understood despite the 35 U.S.C. § 112, second paragraph, indefiniteness discussed above), ESCUDERO RIBAS discloses the shutter of claim 1 as discussed above, and ESCUDERO RIBAS also discloses that at least one of said four longitudinal rail members (left and right stiles 1, 1, and top and bottom rails 21, 30) is a hollow structure having an inner channel opening (at top outside of spaces 36 or 37 and 39 or 40) at each of, and extending between, its two distal ends, a first length of said inner channel (36 or 37 and 39 or 40) forming the receptacle at one of the distal ends of the longitudinal rail (1, 1, 21, 30) and a second length of said inner channel (36 or 37 and 39 or 40) forming the receptacle at the other distal end of the longitudinal rail (1, 1, 21, 21).

As to claim 3 (and as best understood despite the 35 U.S.C. § 112, second paragraph, indefiniteness discussed above), ESCUDERO RIBAS discloses the shutter of claim 1 as discussed above, and ESCUDERO RIBAS also discloses that a first (left 1) of said longitudinal rails (1, 1, 21, 30) includes a retaining structure (6, 7 in Fig. 2) for retaining a first secondary rail (8, 9, 10, 11, 12, 13 in Fig. 2) adjacent and parallel to said first longitudinal rail (left 1), and a second (right 1) of said longitudinal rails (1, 1, 21, 30) includes a retaining structure (6, 7) for retaining a second secondary rail (8, 9, 10, 11, 12, 13 in Fig. 2) adjacent and parallel to said second longitudinal rail (right 1), said first longitudinal rail (left 1) and said second longitudinal rail (right 1) forming facing sides of said rectangular unitary frame (1, 1, 21, 30).

As to claim 11 (and as best understood despite the 35 U.S.C. § 112, second paragraph, indefiniteness discussed above), ESCUDERO RIBAS discloses the shutter

of claim 1 as discussed above, and ESCUDERO RIBAS also discloses that each of the distal ends of said longitudinal rail members (1, 1, 21, 30) has a substantially 45 degree mitered surface (see 45 degree ends of 1, 21 in Fig. 2 and col. 1, line 74), and wherein at least one of said four corner connection members (33 or 34) and said receptacles (36 or 37 of 1, 39 or 40 of 21) of said at least two (1, 21) longitudinal rail members (1, 1, 21, 30) are constructed and arranged such that when said mitered surface (at 2) at one distal end of one (1) of said at least two longitudinal rails (1, 21) abuts said mitered surface (2) of at one distal end of another (21) of said at least two longitudinal rails (1, 21), the first projection of said corner connection member (33 or 34) extends said first distance into the receptacle (36 or 39 and 38 or 40) at said one distal end of said one (1) of said longitudinal rails (1, 21), and the second projection of said corner connection member (33 or 34) extends said first distance into the receptacle (36 or 39 and 38 or 40) at said one distal end of said another (21) of said longitudinal rail members (1, 21).

As to claim 18, ESCUDERO RIBAS discloses the shutter of claim 1 as discussed above, and ESCUDERO RIBAS also discloses that at least said first frame corner connection member (33 or 34 at any of four corners) has its first projection (one of extensions of L-shaped member 33 or 34) extending substantially perpendicular to its second projection member (other of extensions of L-shaped member 33 or 34).

As to claim 19, ESCUDERO RIBAS discloses the shutter of claim 18 as discussed above, and ESCUDERO RIBAS also discloses that at least said first frame corner connection member (33 or 34) is an L-shaped structure, with said first projection (one of extensions of L-shaped member 33 or 34) and said second projection (one of

extensions of L-shaped member 33 or 34) extending substantially perpendicular from a common junction member to form an L shape.

As to claim 15, ESCUDERO RIBAS discloses a shutter (Fig. 1) comprising:

a first outer frame member (1st 14) extending between a first distal end and a second distal end, and having a first receptacle (bounded by inner perimeter of 14 between 18 and 22) at said first distal end and a second receptacle (bounded by inner perimeter of 14 between 18 and 22) at said second distal end;

a first frame corner connection member (1st 24), having a first projection (1st leg of 1st 24) secured within said first receptacle (bounded by inner perimeter of 14 between 18 and 22) of said first outer frame member (1st 14), and having a second projection (2nd leg of 1st 24);

a second frame corner connection member (2nd 24), having a first projection (1st leg of 2nd 24) secured within said second receptacle (bounded by inner perimeter of 14 between 18 and 22) of said first outer frame member (1st 14), and having a second projection (2nd leg of 2nd 24);

a second outer frame member (2nd 14) extending between a first distal end and a second distal end, having a first receptacle (bounded by inner perimeter of 14 between 18 and 22) at said first distal end receiving and secured around said second projection of said first frame corner connection member (1st 24), and having a second receptacle (bounded by inner perimeter of 14 between 18 and 22) at said second distal end;

a third outer frame member (3rd 14) extending between a first distal end and a second distal end, having a first receptacle (bounded by inner perimeter of 14 between

18 and 22) at said first distal end receiving and secured around said second projection of said second frame corner connection member (2nd 24), and having a second receptacle (bounded by inner perimeter of 14 between 18 and 22) at said second distal end;

a third frame corner connection member (3rd 24), having a first projection (1st leg of 3rd 24) secured within said second receptacle of said second outer frame member (2nd 14), and having a second projection (2nd leg of 3rd 24);

a fourth frame corner connection member (4th 24), having a first projection (1st leg of 4th 24) secured within said second receptacle (bounded by inner perimeter of 14 between 18 and 22) of said third outer frame member (3rd 14), and having a second projection (2nd leg of 4th 24); and

a fourth outer frame member (4th 14) extending between a first distal end and a second distal end, having a first receptacle (bounded by inner perimeter of 14 between 18 and 22) at said first distal end receiving and secured around said second projection (2nd leg) of said third frame corner connection member (3rd 24), and having a second receptacle (bounded by inner perimeter of 14 between 18 and 22) at said second distal end receiving and secured around said second projection (2nd leg) of said fourth frame corner connection member (4th 24).

As to claim 20, ESCUDERO RIBAS discloses the shutter of claim 15 as discussed above, and ESCUDERO RIBAS also discloses that at least said first frame corner connection member (33 or 34 at any of four corners) has its first projection (one

of extensions of L-shaped member 33 or 34) extending substantially perpendicular to its second projection member (other of extensions of L-shaped member 33 or 34).

As to claim 21, ESCUDERO RIBAS discloses the shutter of claim 19 [sic - 20] as discussed above, and ESCUDERO RIBAS also discloses that at least said first frame corner connection member (33 or 34) is an L-shaped structure, with said first projection (one of extensions of L-shaped member 33 or 34) and said second projection (one of extensions of L-shaped member 33 or 34) extending substantially perpendicular from a common junction member to form an L shape.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 5, 12-14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over ESCUDERO RIBAS (U.S. Patent No. 3,638,383) in view of MATZKE (U.S. Patent No. 3,968,738).

As to claim 4 (and as best understood despite the 35 U.S.C. § 112, second paragraph, indefiniteness discussed above), ESCUDERO RIBAS discloses the shutter of claim 3 as discussed above, and ESCUDERO RIBAS also discloses a first secondary rail (8/9/10/11/12/13) constrained adjacent and parallel to said first longitudinal rail (left 1) by said first longitudinal rail retaining structure (6, 7), and a second secondary rail

(8/9/10/11/12/13) constrained adjacent and parallel to said second longitudinal rail (right 1) by said second longitudinal rail retaining structure (6, 7).

ESCUDERO RIBAS fails to explicitly disclose that each of said first secondary rail and said second secondary rail includes at least one louver-support through hole, and wherein said portal covering structure comprises at least one louver supported at one end by said louver-support through hole formed in said first secondary rail and supported at its other end by said louver-support through hole formed in said second secondary rail.

MATZKE discloses a louver frame (10) having left and right longitudinal rails (13/14/15/16) and left and right secondary rails (11/17), wherein each of said first and second secondary rails (11/17) includes at least one louver-support through hole (18), and wherein said portal covering structure comprises at least one louver (12) supported at one end by said louver-support through hole (18) formed in said first secondary rail (11/17) and supported at its other end by said louver-support through hole (18) formed in said second secondary rail (11/17).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the shutter of ESCUDERO RIBAS by modifying the longitudinal rail to have the retaining structure as taught by MATZKE and by replacing the secondary rails and louver structure with that as taught by MATZKE in order to have separated louvers for better ventilation.

As to claim 5 (and as best understood despite the 35 U.S.C. § 112, second paragraph, indefiniteness discussed above), ESCUDERO RIBAS in view of MATZKE

discloses the shutter of claim 4 as discussed above, and the resulting shutter from the combination of ESCUDERO RIBAS in view of MATZKE also discloses that a third (21 of ESCUDERO RIBAS) of said longitudinal rails (1, 1, 21, 30 of ESCUDERO RIBAS) includes a retaining structure (15, 16 as modified by MATZKE) for retaining a pair of third secondary rails (17, 17 of 11 as modified by MATZKE) adjacent and parallel to said third longitudinal rail (21 of ESCUDERO RIBAS), and colinear with respect to one another, and a fourth (30 of ESCUDERO RIBAS) of said longitudinal rails (1, 1, 21, 30 of ESCUDERO RIBAS) includes a retaining structure (15, 16 as modified by MATZKE) for retaining a pair of fourth secondary rails (17, 17 of 11 as modified by MATZKE) adjacent and parallel to said fourth longitudinal rail (30 of ESCUDERO RIBAS), and colinear with respect to one another, said third longitudinal rail (21 of ESCUDERO RIBAS) and said fourth longitudinal rail (30 of ESCUDERO RIBAS) forming facing sides (see Fig. 3 of ESCUDERO RIBAS) of said rectangular unitary frame (see Fig. 1 of ESCUDERO RIBAS) perpendicular to said first and second longitudinal rails (1, 1 of ESCUDERO RIBAS).

As to claim 12 (and as best understood despite the 35 U.S.C. § 112, second paragraph, indefiniteness discussed above), ESCUDERO RIBAS discloses the shutter of claim 4 as discussed above, and ESCUDERO RIBAS also discloses that the retaining structure of said first longitudinal rail (1 of ESCUDERO RIBAS) is a U-shaped channel (38 of as ESCUDERO RIBAS modified by retaining frame structure of MATZKE), extending the length of said first rail (1 of ESCUDERO RIBAS), formed of an exterior wall (unnumber end wall of 1 adjacent space 36 of Fig. 2 of ESCUDERO

RIBAS) of said rail (1 of ESCUDERO RIBAS) and a pair of lateral walls (walls of 1 having mitered end surfaces in Fig. 2 of ESCUDERO RIBAS) extending parallel to one another, in a direction away from the exterior wall, with a first ridge (15 of MATZKE) extending along the distal edge of a first of said pair of lateral walls (walls of 1 having mitered end surfaces in Fig. 2 of ESCUDERO RIBAS), and a second ridge (15 of MATZKE) extending along the distal edge of a second of said pair of lateral walls (walls of 1 having mitered end surfaces in Fig. 2 of ESCUDERO RIBAS), the distance between opposing faces of said pair of lateral walls being greater than a width of said first secondary rail (11 of MATZKE), and the distance between said first ridge (15 of MATZKE) and said second ridge (15 of MATZKE) being less than said width of the first secondary rail (11 of MATZKE).

As to claim 13 (and as best understood despite the 35 U.S.C. § 112, second paragraph, indefiniteness discussed above), ESCUDERO RIBAS in view of MATZKE discloses the shutter of claim 12 as discussed above, and the resulting shutter from the combination of ESCUDERO RIBAS in view of MATZKE also discloses that all of said first, second, third and fourth longitudinal rails (1, 1, 21, 30 of ESCUDERO RIBAS as modified to have the retainer structure of MATZKE) have the same cross-section.

As to claim 14 (and as best understood despite the 35 U.S.C. § 112, second paragraph, indefiniteness discussed above), ESCUDERO RIBAS in view of MATZKE discloses the shutter of claim 12 as discussed above, and the resulting shutter from the combination of ESCUDERO RIBAS in view of MATZKE also discloses that all of said

first, second, third and fourth secondary rails (11, 11, 11, 11 of MATZKE) have the same outer cross-sectional dimensions.

As to claim 16, ESCUDERO RIBAS discloses the shutter of claim 15 as discussed above.

ESCUDERO RIBAS fails to explicitly disclose that said first outer frame member includes a plurality of first louver-support receptacles spaced apart from one another along said first axis, said second outer frame member includes a plurality of second louver-support receptacles facing and in alignment with said plurality of second louver-support receptacles, and said portal-covering structure includes a plurality of louver members, each having a first distal end projecting into and supported by a corresponding one of said first louver support receptacles and a second distal end opposite its first distal end, projecting into and supported by a corresponding one of said second louver support receptacles.

MATZKE discloses said first outer frame member (11) includes a plurality of first louver-support receptacles (18) spaced apart from one another along said first axis, said second outer frame member (11) includes a plurality of second louver-support receptacles (18) facing and in alignment with said plurality of second [sic - first] louver-support receptacles (18), and said portal-covering structure (12, 12, . . .) includes a plurality of louver members (12, 12), each having a first distal end projecting into and supported by a corresponding one of said first louver support receptacles (18) and a second distal end opposite its first distal end, projecting into and supported by a corresponding one of said second louver support receptacles (18).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the shutter of ESCUDERO RIBAS by modifying the longitudinal rail to have the retaining structure as taught by MATZKE and by replacing the secondary rails and louver structure with that as taught by MATZKE in order to have separated louvers for better ventilation.

Claims 6-8 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over ESCUDERO RIBAS (U.S. Patent No. 3,638,383) in view of MATZKE (U.S. Patent No. 3,968,738), as applied to claims 4 and 5, respectively, above, and further in view of FOSTER ET AL. (U.S. Patent No. 6,536,174).

As to claim 6 (and as best understood despite the 35 U.S.C. § 112, second paragraph, indefiniteness discussed above), ESCUDERO RIBAS in view of MATZKE discloses the shutter of claim 4 as discussed above, and the resulting shutter from the combination of ESCUDERO RIBAS also discloses a center louver support rail (unnumbered, but see under reference numeral "21" in Fig. 1 of ESCUDERO RIBAS).

Neither ESCUDERO RIBAS nor MATZKE explicitly disclose a center louver support rail having at least one louver-support through hole, secured to said unitary frame to extend substantially perpendicular to said louver, and wherein said louver passes through said through hole to be supported at a location of said louver between said louver's first and second distal ends.

FOSTER ET AL. disclose a center louver support rail (20 comprised of 20a/20b in Figs. 1-5) having at least one louver-support through hole (34), secured to said

unitary frame (12, 14, 16, 18) to extend substantially perpendicular to said louver (22), and wherein said louver (22) passes through said through hole (34) to be supported at a location of said louver (22) between said louver's (22) first and second distal ends (at 16, 18).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the shutter of ESCUDERO RIBAS in view of MATZKE by making the center louver support rail have at least one louver-support through hole, secured to said unitary frame to extend substantially perpendicular to said louver, and wherein said louver passes through said through hole to be supported at a location of said louver between said louver's first and second distal ends as taught by FOSTER ET AL. in order to better support the louvers at three locations (distal ends and center) instead of only two point support at only the distal ends.

As to claim 7 (and as best understood despite the 35 U.S.C. § 112, second paragraph, indefiniteness discussed above), ESCUDERO RIBAS in view of MATZKE discloses the shutter of claim 5 as discussed above, and ESCUDERO RIBAS also discloses a center louver support rail (see Fig. 1).

Neither ESCUDERO RIBAS nor MATZKE explicitly disclose a center louver support rail having at least one louver-support through hole, secured to said unitary frame to extend substantially perpendicular to said louver, and wherein said louver passes through and is supported by said louver-support through hole to be supported at a location of said louver between said louver's first and second distal ends, and wherein a first distal end of said center louver support abuts said third longitudinal said and a

second distal end of said center louver support, opposite said first distal end, abuts said fourth longitudinal rail, and said center louver support is supported from movement in a direction parallel to said louver by said pair of third secondary rails and said pair of fourth secondary rails.

FOSTER ET AL. disclose a center louver support rail (20 comprised of 20a/20b in Figs. 1-5) having at least one louver-support through hole (34), secured to said unitary frame (12, 14, 16, 18) to extend substantially perpendicular to said louver (22), and wherein said louver (22) passes through and is supported by said louver-support through hole (34) to be supported at a location of said louver (22) between said louver's (22) first and second distal ends (at 16, 18), and wherein a first distal end of said center louver support (20) abuts said third longitudinal (12) said and a second distal end of said center louver support (20), opposite said first distal end, abuts said fourth longitudinal rail (14).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the shutter of ESCUDEIRO RIBAS in view of MATZKE by making the center louver support rail having at least one louver-support through hole, secured to said unitary frame to extend substantially perpendicular to said louver, and wherein said louver passes through and is supported by said louver-support through hole to be supported at a location of said louver between said louver's first and second distal ends, and wherein a first distal end of said center louver support abuts said third longitudinal said and a second distal end of said center louver support, opposite said first distal end, abuts said fourth longitudinal rail as taught by FOSTER ET AL. in order

to better support the louvers at three locations (distal ends and center) instead of only two point support at only the distal ends.

And thus by the modifying ESCUDERO RIBAS in view of MATZKE by FOSTER ET AL. to have the center louver support rail, the center louver support rail of the shutter resulting from the combination of ESCUDERO RIBAS in view of MATZKE and FOSTER ET AL. would necessarily be supported from movement in a direction parallel to said louver by said pair of third secondary rails (upper rail 21 of ESCUDERO RIBAS as modified to have retainer structure 11/15/17 of MATZKE would be divided into two separate secondary rails 11, 11 to accommodate center louver support rail of FOSTER ET AL.) and said pair of fourth secondary rails (lower rail 30 of ESCUDERO RIBAS as modified to have retainer structure 11/15/17 of MATZKE would be divided into two separate secondary rails 11, 11 to accommodate center louver support rail of FOSTER ET AL.).

As to claim 8 (and as best understood despite the 35 U.S.C. § 112, second paragraph, indefiniteness discussed above), ESCUDERO RIBAS in view of MATZKE and FOSTER ET AL. discloses the shutter of claim 7 as discussed above, and the resulting shutter from the combination of ESCUDERO RIBAS in view of MATZKE and FOSTER ET AL. also discloses a first abutment member (structure similar to 31, but in upper middle longitudinal rails shown in Fig. 1 of ESCUDERO RIBAS as modified by 20 of FOSTER ET AL.) engaged with and extending from the first distal end of said center louver support member, and a second abutment member (structure similar to 31, but in lower middle longitudinal rails shown in Fig. 1 of ESCUDERO RIBAS as modified by 20

of FOSTER ET AL.) engaged with and extending from the first distal end of said center louver support member, wherein said center louver support is supported, at its first and second distal ends (upper and lower distal end of middle rail of ESCUDERO RIBAS as modified by 20 of FOSTER ET AL.), from movement in a direction parallel to said louver (22 of FOSTER ET AL.) by first and second ones of said pair of third and fourth secondary rails (11, 11 of MATZKE) abutting ends of said secondary rails of an adjacent perpendicular longitudinal rail at one end and said first and second abutment members at its other ends.

As to claim 22, ESCUDERO RIBAS discloses a shutter, comprising:

a rectangular frame structure (Fig. 1) having a first pair of perimeter rails (1, 1) parallel to and spaced apart from one another, and a second pair of perimeter rails (21, 30) parallel to and spaced apart one another and perpendicular to the first pair of perimeter rails (1, 1), said first pair of perimeter rails (1, 1) secured to said second pair of perimeter rails (21, 31);

center louver support rail (unnumbered, but parallel to rail 1 in Fig. 1) extending parallel to the first pair of perimeter rails (1, 1), having one of its distal ends secured to a first (21) of said second pair of perimeter rails (21, 30), and the other of its distal ends secured to the other (30) of said second pair of perimeter rails (21, 30); and

a plurality of louvers (18).

ESUDERO RIBAS fails to explicitly disclose that each of the first pair of perimeter rails includes a plurality of louver support receptacles arranged such that the plurality included in one of the first pair of rails faces and is aligned with the plurality included in

the other of the first pair of rails, that said center louver support rail includes a plurality of louver support through holes, and that each of said plurality of louvers has a first of its distal ends extending into and supported by a corresponding one of said plurality of louver support receptacles formed in said one of said second pair of perimeter rails, the other of its distal ends extending into and supported by a corresponding one of said plurality of louver support receptacles formed in the other of said second pair of perimeter rails, and extending through a corresponding one of said plurality of louver support through holes formed in said center louver support rail.

MATZKE discloses a shutter having each of the first pair of perimeter rails (10 in Fig. 3) includes a plurality of louver support receptacles (18, 18) arranged such that the plurality (18, 18) included in one of the first pair of rails faces (11) and is aligned with the plurality (18, 18) included in the other of the first pair of rails (10), and that each of said plurality of louvers (12, 12) has a first of its distal ends extending into and supported by a corresponding one of said plurality of louver support receptacles (18, 18) formed in said one of said second pair of perimeter rails (10), the other of its distal ends extending into and supported by a corresponding one of said plurality of louver support receptacles (18, 18) formed in the other of said second pair of perimeter rails (10).

FOSTER ET AL. disclose a shutter having a center louver support rail (20 comprised of 20a, 20b) which includes a plurality of louver support through holes (34), wherein said louvers (22, 22) extend through a corresponding one of said plurality of louver support through holes (34) formed in said center louver support rail (20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the shutter of ESCUDERO RIBAS by: (1) modifying the longitudinal rail to have the retaining structure as taught by MATZKE and by replacing the secondary rails and louver structure with that as taught by MATZKE in order to have separated louvers for better ventilation; and (2) making the center louver support rail have at least one louver-support through hole, secured to said unitary frame to extend substantially perpendicular to said louver, and wherein said louver passes through said through hole to be supported at a location of said louver between said louver's first and second distal ends as taught by FOSTER ET AL. in order to better support the louvers at three locations (distal ends and center) instead of only two point support at only the distal ends.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over ESCUDERO RIBAS (U.S. Patent No. 3,638,383) in view of any one of WHITE (U.S. Patent No. 5,450,701), GUILLEMET (U.S. Patent No. 5,431,211), and SILVERMAN (U.S. Patent No. 6,845,593).

As to claim 9 (and as best understood despite the 35 U.S.C. § 112, second paragraph, indefiniteness discussed above), ESCUDERO RIBAS discloses the shutter of claim 1 as discussed above.

ESCUDERO RIBAS fails to explicitly disclose that at least one of said four corner connection members has a latch-pin passage extending through its first projection in its extending direction, said at least one longitudinal rail that is a hollow box includes an

elongated clearance passage from an exterior of said rail to said channel, extending in the direction of said channel, and another of said longitudinal rails includes a latch pin clearance hole, and further comprising: a latch pin extending through and supported by said latch-pin clearance through hole of said corner connection member.

Any one of WHITE, GUILLEMET, and SILVERMAN discloses corner connector members (24 in Fig. 2 of WHITE; 13 in Fig. 1 of GUILLEMET; and 42 in Fig. 1 of SILVERMAN) having a latch-pin passage (55 or 50 in WHITE; 26 in Fig. 2 and 36 in Fig. 3 of GUILLEMET; and above wall 55 and slot 58 in Fig. 1 of SILVERMAN) extending through its first projection in its extending direction, said at least one longitudinal rail (28 and 24 in WHITE; 12 and square of 13 of GUILLEMET; and 10 and 48 in SILVERMAN) that is a hollow box includes an elongated clearance passage from an exterior of said rail (28 and 24 in WHITE; 12 and square of 13 of GUILLEMET; and 10 and 48 in SILVERMAN) to said channel (inside of 28 and 54 through 24 in WHITE; 18, 26, 36 of GUILLEMET; and inside of 10, above 52, and 58 in Fig. 1 of SILVERMAN), extending in the direction of said channel (inside of 28 and 54 through 24 in WHITE; 18, 26, 36 of GUILLEMET; and inside of 10, above 52, and 58 in Fig. 1 of SILVERMAN), and another of said longitudinal rails (26, 50 of WHITE; 11, 14, 13 of GUILLEMET; and 60, 48 of SILVERMAN) includes a latch pin clearance hole (what end of bolt 36 goes through of WHITE; what 38 goes through of GUILLEMET; and what 32 goes through of SILVERMAN), and further comprising: a latch pin (end of bolt 36 of WHITE; 38 of GUILLEMET; and 32 of SILVERMAN) extending through and supported by said latch-pin clearance through hole (what end of bolt 36 goes through of WHITE; what 38 goes

through of GUILLEMET; and what 32 goes through of SILVERMAN) of said corner connection member (24 in Fig. 2 of WHITE; 13 in Fig. 1 of GUILLEMET; and 42 in Fig. 1 of SILVERMAN).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the shutter of ESCUDEIRO RIBAS by making at least one of said four corner connection members have a latch-pin passage extending through its first projection in its extending direction, said at least one longitudinal rail that is a hollow box includes an elongated clearance passage from an exterior of said rail to said channel, extending in the direction of said channel, and another of said longitudinal rails includes a latch pin clearance hole, and further comprising a latch pin extending through and supported by said latch-pin clearance through hole of said corner connection member as taught by any one of WHITE, GUILLEMET, and SILVERMAN in order to provide a means for attaching the shutter to another structure such as the wall of a building on which the shutter will be deployed.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over ESCUDEIRO RIBAS (U.S. Patent No. 3,638,383) in view of any one of WHITE (U.S. Patent No. 5,450,701), GUILLEMET (U.S. Patent No. 5,431,211), and SILVERMAN (U.S. Patent No. 6,845,593), as applied to claim 9 above, and further in view of either HILL (U.S. Patent No. 6,345,476) or FIGUEIREDO ET AL. (U.S. Patent No. 5,549,148).

As to claim 10 (and as best understood despite the 35 U.S.C. § 112, second paragraph, indefiniteness discussed above), ESCUDERO RIBAS in view of WALLACE discloses the shutter of claim 9 as discussed above, and the resulting shutter from the combination of ESCUDERO RIBAS in view of any one of WHITE, GUILLEMET, and SILVERMAN also discloses that a latch pin receiving structure (204 in Fig. 8 of WHITE; 42 in Fig. 3 of GUILLEMET; and building that window frame in is of SILVERMAN) having a latch pin receptacle.

Neither ESCUDERO RIBAS nor any one of WHITE, GUILLEMET, and SILVERMAN explicitly discloses that the latch pin receiving structure is mounted to an exterior wall surface, and a manually rotatable screw having a threaded shaft extending through said elongated clearance passage and threadably engaged with said latch pin, with a manual contact structure exterior to said another of said longitudinal rails, wherein tightening said manual screw substantially prevents motion of said latch pin in the extending direction of said latch pin passage, and wherein loosening said manual screw allows movement of said latch pin from an extended position in which it extends through said latch pin passage, through said latch pin clearance hole and into said latch pin receptacle, to a retracted position wherein the latch pin does not extend into said latch pin receptacle.

Both HILL and FIGUEIREDO ET AL. disclose that it is well known in the shutter art to use a latch pin (30 in Fig. 9 of HILL, 100 in Fig. 9 of FIGUEIREDO ET AL.) with a thumb screw (52 in Fig. 9 of HILL, 106 in Fig. 9 of FIGUEIREDO ET AL.) for securement purposes.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the shutter of ESCUDERO RIBAS in view of any one of WHITE, GUILLEMET, and SILVERMAN by substituting the latch pin with thumb screw as taught by either HILL or FIGUEIREDO ET AL. in order to more easily be able to able to lock the latch pin in a use or non-use position via the thumb screw which is easy to grasp and turn.

Claims 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over ESCUDERO RIBAS (U.S. Patent No. 3,638,383) in view of any one of WHITE (U.S. Patent No. 5,450,701), GUILLEMET (U.S. Patent No. 5,431,211), and SILVERMAN (U.S. Patent No. 6,845,593).

As to claim 23, ESCUDERO RIBAS discloses a shutter, comprising:

a rectangular frame structure (Fig. 1) having a first pair of perimeter rails (1, 1) parallel to and spaced apart from one another, and a second pair of perimeter rails (21, 30) parallel to and spaced apart one another and perpendicular to the first pair of perimeter rails (1, 1), said first pair of perimeter rails (1, 1) secured to said second pair of perimeter rails (21, 30).

ESCUDERO RIBAS fails to explicitly disclose that at least one of said first pair of perimeter rails includes latch pin guide extending in the direction of said perimeter rail and at least one of said second pair of perimeter rails includes a latch pin clearance hole aligned with said latch pin guide; a latch pin supported by and movable within said latch pin guide, in said direction between an extended position and a retracted position,

wherein, in said extended position a distal portion of latch pin extends through said latch pin clearance hole to protrude outward from said frame.

Any one of WHITE, GUILLEMET, and SILVERMAN explicitly disclose a corner connector (24 in Fig. 2 of WHITE; 13 in Fig. 1 of GUILLEMET; and 42 in Fig. 1 of SILVERMAN), wherein at least one of said first pair of perimeter rails (28/24 and parallel rail of WHITE; 12/15/13 and parallel rail of GUILLEMET; and 10/48 and parallel rail of SILVERMAN) includes latch pin guide (55 or 50 in WHITE; 26 in Fig. 2 and 36 in Fig. 3 of GUILLEMET; and above wall 55 and slot 58 in Fig. 1 of SILVERMAN) extending in the direction of said perimeter rail (28/24 of WHITE; 12/15 of GUILLEMET; and 10/48 of SILVERMAN) and at least one of said second pair of perimeter rails (26/24 and parallel rail of WHITE; 11/14/13 and parallel rail of GUILLEMET; and 60/48 and parallel rail of SILVERMAN) includes a latch pin clearance hole (what end of bolt 36 goes through of WHITE; what 38 goes through of GUILLEMET; and what 32 goes through of SILVERMAN) aligned with said latch pin guide (55 or 50 in WHITE; 26 in Fig. 2 and 36 in Fig. 3 of GUILLEMET; and above wall 55 and slot 58 in Fig. 1 of SILVERMAN); a latch pin (36 of WHITE; 38 of GUILLEMET; and 32 of SILVERMAN) supported by and movable within said latch pin guide (55 or 50 in WHITE; 26 in Fig. 2 and 36 in Fig. 3 of GUILLEMET; and above wall 55 and slot 58 in Fig. 1 of SILVERMAN), in said direction between an extended position and a retracted position, wherein, in said extended position a distal portion of latch pin (36 of WHITE; 38 of GUILLEMET; and 32 of SILVERMAN) extends through said latch pin clearance hole (what end of bolt 36 goes

through of WHITE; what 38 goes through of GUILLEMET; and what 32 goes through of SILVERMAN) to protrude outward from said frame.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the shutter of ESCUDERO RIBAS by including a latch pin guide in one of said corner connector members extending in the direction of said perimeter rail and a latch pin clearance hole aligned with said latch pin guide in one of said rails so that a latch pin is supported by and movable within said latch pin guide between an extended position and a retracted position, wherein, when in said extended position, a distal portion of latch pin extends through said latch pin clearance hole to protrude outward from said frame as taught by any one of WHITE, GUILLEMET, and SILVERMAN in order to connect the shutter to the structure on which it is deployed.

As to claim 24, ESCUDERO RIBAS in view of any one of WHITE, GUILLEMET, and SILVERMAN discloses the shutter of claim 23 as discussed above, and the resulting shutter from the combination of ESCUDERO RIBAS in view of any one of WHITE, GUILLEMET, and SILVERMAN also discloses that said at least one of said first pair of perimeter rails (28/24 and parallel rail of WHITE; 12/15/13 and parallel rail of GUILLEMET; and 10/48 and parallel rail of SILVERMAN) having said latch pin guide (55 or 50 in WHITE; 26 in Fig. 2 and 36 in Fig. 3 of GUILLEMET; and above wall 55 and slot 58 in Fig. 1 of SILVERMAN) comprises a hollow member surrounding and supporting said latch pin guide (55 or 50 in WHITE; 26 in Fig. 2 and 36 in Fig. 3 of GUILLEMET; and above wall 55 and slot 58 in Fig. 1 of SILVERMAN), and wherein said latch pin guide (55 or 50 in WHITE; 26 in Fig. 2 and 36 in Fig. 3 of GUILLEMET; and

above wall 55 and slot 58 in Fig. 1 of SILVERMAN) includes a latch pin support through hole (54 of WHITE; 26/36 of GUILLEMET; and above 52, and 58 of SILVERMAN) dimensioned and arranged to accommodate and support said latch pin (36 of WHITE; 38 of GUILLEMET; and 32 of SILVERMAN) in moving between said extended and retracted position.

As to claim 25, ESCUDERO RIBAS in view of any one of WHITE, GUILLEMET, and SILVERMAN discloses the shutter of claim 24 as discussed above, and the resulting shutter from the combination of ESCUDERO RIBAS in view of any one of WHITE, GUILLEMET, and SILVERMAN also discloses that an elongated slot (what 56 is in of WHITE; what 47 is in of GUILLEMET; and what 36A, 36B move in of SILVERMAN) extends in a depth direction from an outer surface of said hollow member of said at least one of said first pair of perimeter rails (28/24 and parallel rail of WHITE; 12/15/13 and parallel rail of GUILLEMET; and 10/48 and parallel rail of SILVERMAN) having said latch pin guide (55 or 50 in WHITE; 26 in Fig. 2 and 36 in Fig. 3 of GUILLEMET; and above wall 55 and slot 58 in Fig. 1 of SILVERMAN) into said latch pin support through hole (54 of WHITE; 26/36 of GUILLEMET; and above 52, and 58 of SILVERMAN), and has a slot length extending in the direction that said latch pin (36 of WHITE; 38 of GUILLEMET; and 32 of SILVERMAN) moves from said extended position to said retracted position comprises a hollow member, and has a slot width, further comprising: a manual actuator member (56 of WHITE; 47 of GUILLEMET; and 36A, 36B of SILVERMAN) connected to said latch pin (36 of WHITE; 38 of GUILLEMET; and 32 of SILVERMAN) and extending outward, in a direction radial with

respect to the direction that said latch pin (36 of WHITE; 38 of GUILLEMET; and 32 of SILVERMAN) moves from said extended position to said retracted position, through said slot (what 56 is in of WHITE; what 47 is in of GUILLEMET; and what 36A, 36B move in of SILVERMAN), and having a manual contact surface above said slot (what 56 is in of WHITE; what 47 is in of GUILLEMET; and what 36A, 36B move in of SILVERMAN).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Patents cited of interest as showing various configurations of shutters include: U.S. Patent No. 5,737,874 to Sipos et al.; U.S. Patent No. 3,429,070 to Hurst; U.S. Patent No. 4,939,880 to Wang; U.S. Patent No. 6,996,934 to Briscoe et al.; U.S. Patent Application Publication No. 2007/0094954 to Blackwell et al.; U.S. Patent No. 7,131,241 to Blackwell et al.; U.S. Patent No. 3,394,518 to Worrell, Jr.; U.S. Patent No. 6,219,985 to Hsu; U.S. Patent No. 6,817,141 to Chen; U.S. Patent No. 6,877,285 to Poma et al.; U.S. Patent No. 5,163,260 to Ricard et al.; U.S. Patent No. 5,524,407 to Ricard et al.; U.S. Patent No. 6,263,632 to Cadorette; U.S. Patent No. 2,840,870 to Pohlman; U.S. Patent No. 1,380,980 to Lane; U.S. Patent No. 3,455,079 to Frederick; U.S. Patent No. 5,255,486 to Wang; U.S. Patent No. 5,778,598 to Ohanesian; U.S. Patent Application Publication No. 2004/0035082 to Huboda et al.; U.S. Patent No. 4,831,804 to Sayer; U.S. Patent No. 5,634,998 to Schiedegger et al.; U.S. Patent Application Publication No. 2004/0003540 to Horn et al.; U.S. Patent

Application/Control Number:
10/796,969
Art Unit: 3635

Page 41

Application Publication No. 2002/0056230 to Horn et al.; U.S. Patent No. 3,550,342 to South; U.S. Patent No. 3,461,629 to Smith; U.S. Patent No. 3,797,186 to Smith; U.S. Patent Application Publication No. 2006/0162266 to Hay, III; and U.S. Patent Application Publication No. 2006/0248822 to Ho.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gay Ann Spahn whose telephone number is (571)-272-7731. The examiner can normally be reached on Monday through Friday, 10:30 am to 7:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard E. Chilcot can be reached on (571)-272-6777. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink that reads "Gay Ann Spahn". The signature is written in a cursive, flowing style.

Gay Ann Spahn, Patent Examiner
November 12, 2007